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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/320,490 01/21/96 HATH

8 177/527410

0411/0112

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EXAMINER

ART UNIT

PAPER NUMBER

2728

DATE MAILED:
01/12/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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DETAILED ACTION

Election/Restriction

1. The restriction requirement of paper #7 is hereby repeated and made final.
2. Applicant's election without traverse of claims 8-15 in Paper No. 8 is acknowledged.
3. Claims 16 and 17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, the requirement having been made **without** traversed in Paper No. 8.

Claim Rejections - 35 USC § 102

4. Claims 8-11 are rejected under 35 U.S.C. 102(b) as being unpatentable over Dornes et al.
Regarding claim 8, Dornes et al. discloses a component mounting apparatus comprising;
a pair component supply tables (42,44) on which components (56,56') are accommodated and which are arranged on opposites sides of a board mounting station where a board (8) is positioned; a first mounting head section (38) for successively picking up the components at one of the components supply tables (column 4 ln 6-12) and thereafter successively mounting the picked-up component onto the board (column 4 ln 14-18); a second insertion head (40) for successively picking up the components at the other supply table and thereafter successively mounting the picked-up component onto the board; wherein the first and second mounting head

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section are independently moveable between the component supply table and the board (column 4 ln 6-16).

Regarding claim 9, the first and the second mounting head are moveable in two directions perpendicular and parallel to a side surface of the board (column 4 ln 14-16).

Regarding claims 10 and 11, Dornes et al discloses controller (49) for mutually controlling the first and second mounting head section in accordance with the timing at which, when one of the first and second mounting head section carries out a component picking up operation for picking up the component from the component supply table, the other of the first and second mounting head operation for mounting the pickup component onto the board.

Claim Rejections - 35 USC § 103

5. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dornes et al. in view of Oyama.

Dornes fails to show the first and second mounting head sections with a component suction nozzle for sucking the components at one time. Oyama discloses a component mounting apparatus having suction nozzles (column 3 ln 39-41).

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the mounting apparatus of Dornes et al with that of Oyama to provide the first and second mounting head section with nozzles to pick up the component from the supply

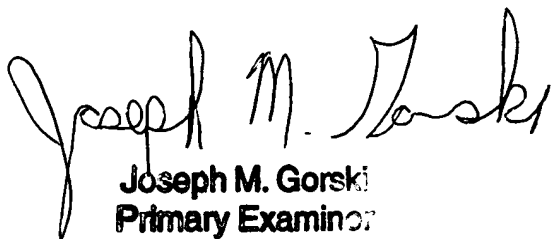
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table and insert each component into the board in order to realize the benefits that suction nozzles exhibit relative to the pick-up and insertion tools (50,52) of Dornes. The exact amount of suction nozzles present is deemed to be a matter of design choice .

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
7. Any inquiry concerning this communication should be directed to Sean Smith at telephone number (703) 305-0831.


Joseph M. Gorski
Primary Examiner

S.S.

January 5, 1999

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